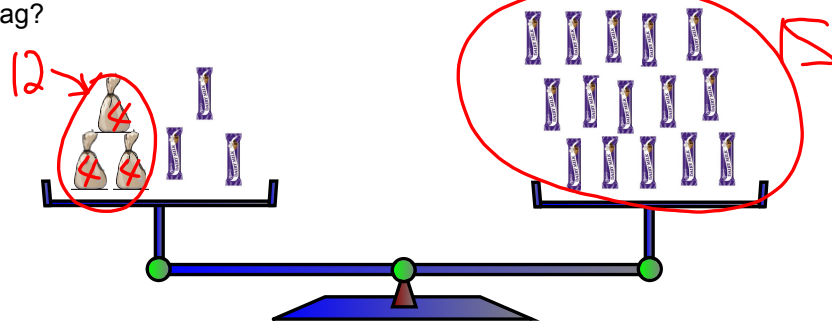


L8 (7.7) Solving Equations (Multi-Step Equations)

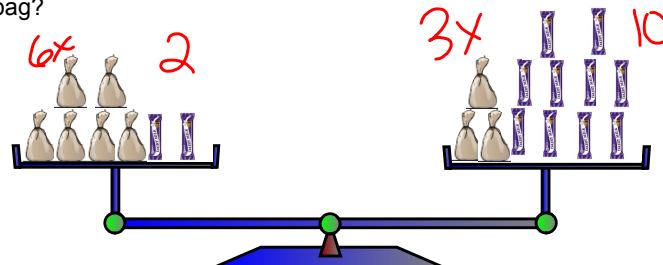
Can you figure out how many Dairy Milk chocolate bars are in a single bag?



Can you model the above with an equation?

$$\begin{aligned}
 3x + 3 &= 15 \\
 3x &= 15 - 3 \\
 \frac{3x}{3} &= \frac{12}{3} \\
 x &= 4
 \end{aligned}$$

Can you figure out how many Dairy Milk chocolate bars are in a single bag?



Can you model the above with an equation?

$$\begin{aligned}
 6x + 2 &= 3x + 10 \\
 \underbrace{6x - 3x} + 2 &= 10 \\
 3x + 2 &= 10 \\
 3x &= 10 - 2 \\
 \frac{3x}{3} &= \frac{8}{3} \\
 x &= \frac{8}{3}
 \end{aligned}$$

Ex. 1: Solve each equation.

a) $2x - 5 = 11$

$$2x = 11 + 5$$

$$\frac{2x}{2} = \frac{16}{2}$$

$$x = 8$$

b) $5x + 6 = -4$

$$5x = -4 - 6$$

$$\frac{5x}{5} = \frac{-10}{5}$$

$$x = -2$$

c) $3 + x = -4x - 42$

$$x = -4x - 42 - 3$$

$$x = -4x - 45$$

$$4x + x = -45$$

$$\frac{5x}{5} = \frac{-45}{5}$$

$$x = -9$$

d) $3x - 5 = 7 - 3x$

$$3x = 7 + 5 - 3x$$

$$3x + 3x = 12$$

$$\frac{6x}{6} = \frac{12}{6}$$

$$x = 2$$

When we solved the equation $3x - 5 = 7 - 3x$ we got the solution $x = 2$.

How can we check to see if this answer is correct?

<u>L.S.</u>	\div	<u>R.S.</u>
$3x - 5$	\vdots	$7 - 3x$
$3(2) - 5$	\vdots	$7 - 3(2)$
$6 - 5$	\vdots	$7 - 6$
1	\vdots	1

(L.S. = R.S. answer correct.)

Assigned Work:

p. 286

#2, 3aceg, 5